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10/711,380	09/15/2004	Yen-Chang Tung	13464-US-PA	5379
31561 7590 09/17/2008 JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			EXAMINER CHANG, JOSEPH	
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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* YEN-CHANG TUNG

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Appeal 2008-1615  
Application 10/711,380  
Technology Center 2800

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Decided: September 15, 2008

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Before, ROBERT E. NAPPI, JOHN A. JEFFERY,  
and KARL D. EASTHOM, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from the Final Rejection of claims 1-16, the only claims pending (*see* App. Br. 1, Final Office Action, mailed May 2, 2006). We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Appellant's claimed invention relates to a voltage controlled oscillator (VCO), having a constant current source, a voltage/current converter, a current mirror and an oscillating circuit. (Spec. ¶¶ 9-10). The constant reference source is equal to the sum of a first and a second current. (*See id.* Fig. 2A).

Claim 1 is illustrative of the invention and reads as follows:

1. A voltage control oscillator, for outputting a clock signal with a frequency according to an input voltage, comprising:

a constant current source, for providing a reference current;

a voltage/current converter, coupled to the constant current source, for determining a first current passing through the voltage/current converter according to the input voltage;

a current mirror, having a first current terminal and a second current terminal, the first current terminal being coupled to the constant current source, for determining a third current passing through the second current terminal according to the second current passing through the first current terminal, wherein the second current is the reference current subtracted by the first current; and

an oscillating circuit, coupled to the second current terminal of the current mirror, for determining the frequency of the outputted clock signal according to the third current.

The Examiner relies on the following prior art references to show unpatentability:

Jelinek	US 5,331,295	July 19, 1994
Klughart	US 5,798,669	Aug. 25, 1998

Claims 1, 3, 4 and 16<sup>1</sup> stand rejected under 35 U.S.C. § 102(b) as being anticipated by Jelinek.

Claims 2 and 5-15 stand rejected under 35 U.S.C. § 103(a) as being obvious over the collective teachings of Jelinek and Klughart

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Brief (received Feb. 11, 2007), Reply Brief (received July 26, 2007), and Answer (mailed May 30, 2007) for the respective details. Only those arguments actually made by Appellant have been considered in this decision. Arguments which Appellant could have made but chose not to make in the Brief have not been considered and are deemed to be waived. 37 C.F.R. § 41.37(c) (1) (vii).

## PRINCIPLES OF LAW

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.") (*quoting In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

Appellant may sustain this burden by showing that the prior art reference relied upon by the Examiner fails to disclose an element of the claim. It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re*

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<sup>1</sup> We note that claim 16, as listed in the Brief, lacks its claim number.

*King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986); *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Furthermore,

“there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” . . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

*KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

## ANALYSIS

### 35 U.S.C. § 102(b) REJECTION

Appellant’s arguments pertaining to the Examiner’s anticipation rejection are directed toward independent claim 1. Therefore, we select claim 1 as representative of the group of claims 1, 3, 4 and 16 (App. Br. 4-7).

Appellant disputes the Examiner's determination that Jelinek discloses "wherein the second current is the reference current subtracted by the first current" as called for in claim 1. That is, Appellant states that "there is no evidence . . . from Jelinek or provided by the Examiner that 'the reference current 12 is the sum of the first current and the second current' as the Examiner stated in the Office Actions." (App. Br. 5).

Appellant explains further: "On the contrary, Jelinek teaches '[T]]he connection of the two current sources at node 90 in attenuator 16 results in the supply current provided to attenuator 16 being the output of the second current source (14) subtracted from the output of the first current source['] (col. 4, lines 14-18)." (App. Br. 5, quoting Jelinek, first bracket set original to Appellant).

The Examiner responds by stating that the "current source 14 of Jelinek has nothing to do with the scope of the claim. The reference current 12 is [the] sum of the first and second current that is left and right sides of 16 . . . ." (Ans. 7).

We disagree with the Examiner. The sum of the first and second currents flowing through attenuator 16 must equal the net current into the node which involves both current sources 12 and 14 (Jelenik; Fig. 1; col. 4, ll. 14-18).<sup>2</sup> That is, Figure 1 of Jelinek reveals that the current source 12 (i.e., "the reference current" of claim 1) equals the sum of: the second current source 14, plus the split current through the left-hand branch (i.e., "the first current" of claim 1) and the split current through the right-hand

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<sup>2</sup> See also claim 1 of Jelinek – the difference between the first and second current sources yielding a "net current," the attenuator "splitting said net current into first and second split currents" (col. 5, ll. 54-60).

branch (i.e. “the second current” of claim 1) of the attenuator 16. Accordingly, the second current does not equal to “the reference current subtracted by the first current” as set forth in the claim; rather, the second current equals the reference current 12 subtracted by *the sum of the second current source 14 and the first current*.

We note that the Appellant also argued essentially that Jelinek’s current source 16 is variable, and as such, it cannot be considered part of the reference current. (*See* Reply Br. 4-5). As the Examiner has neither found otherwise nor addressed the argument, we do not consider it here.

In view of the above discussion, we will not sustain the Examiner’s 35 U.S.C. § 102(b) rejection of independent claim 1, nor the rejections of claims 3, 4 and 16 dependent therefrom.

*35 U.S.C. § 103(a) REJECTION*

We also will not sustain the Examiner’s obviousness rejection of claims 2 and 5-15, based on the collective teachings of Jelinek and Klughart. The Examiner does not find, nor do we, that Klughart provides any teaching or suggestion regarding the second current that cures the deficiencies noted above with respect to the rejection of claim 1. Accordingly, we will not sustain the rejection of dependent claims 2 and 5-15 for the reasons discussed with respect to claim 1.

CONCLUSION

In summary, we will not sustain the Examiner's rejections of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-16 is reversed.

REVERSED

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